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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,194	CHELLAPILLA ET AL.	
	Examiner	Art Unit	
	David P. Rashid	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 10 May 2007.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-42 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-42 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. ____ .
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/6/2007. 5) Notice of Informal Patent Application
6) Other: ____ .

DETAILED ACTION

All of the examiner's suggestions presented herein below have been assumed for examination purposes, unless otherwise noted.

Amendments

1. This office action is responsive to the claim and specification amendment received on 5/10/2007. Claims 1 – 42 remain pending.

Drawings

2. The replacement drawings were received on 5/10/2007 and are acceptable. In response to applicant's drawing amendments and remarks, the previous drawing objections are withdrawn.

Specification

3. In response to applicant's specification amendments and remarks received on 5/10/2007, the previous specification objections are withdrawn.

Claim Objections

4. In response to applicant's claim amendments and remarks received on 5/10/2007, the previous claim objections are withdrawn.

Claim Rejections - 35 USC § 101

5. The previous 35 U.S.C. 101 rejections are withdrawn in view of applicant's amendment to claim 17, which further limits the "computer readable medium" to that of the disclosed tangible "storage media" (e.g., RAMs, ROMs, etc. refer to specification page 12), thereby excluding the non-statutory intangible media (e.g., signals, carrier waves, etc.).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination between NewSoft (*NewSoft Presto! Bizcard User's Guide*, NewSoft Technology Corp., 2001) and Zhou (US 6,898,316 B2).

Regarding **claim 1**, while NewSoft discloses a computer-implemented method (“Simply scan your business cards and Presto! BizCard automatically saves the data and image for each card. Different viewing modes are available for easy searching, editing, creating, and sorting.”, page 1) for populating an electronic form (the electronic form in Card Deck mode on page 10; the electronic form in Card List mode on page 12; the electronic form on the left side of the Card Editor mode on page 11) from an electronic image (the business card image on the right side of the Card Editor mode on page 11), the method comprising:

(b) identifying information elements from pixels within the electronic image that correspond to the first object (“Presto! BizCard keeps track of names, companies, mailing addresses, phone/fax numbers, e-mail addresses, and more. Simply scan your business cards and Presto! BizCard automatically saves the data and image for each card.”, page 1 wherein the information elements are the names, companies, mailing addresses, phone/fax numbers, e-mail addresses, etc and the first object are the business cards being scanned), including identifying

text blocks within the first object using optical character recognition (“Scanners have two main parameters that influence the quality of the OCR results.”, page 53 implying the results from the NewSoft program were given using OCR technology)

(c) displaying simultaneously to a user (Card Editor mode, page 11) fields of the electronic form (those fields listed in Card Editor mode are universally present within all electronic forms listed above) in a form data area (the business card image on the right side of the Card Editor mode on page 11) and the identified text blocks in an object data area (left side of the Card Editor mode on page 11) that is outside of the form data area, which corresponds to the first object, through a graphical user interface (Card Editor mode is a graphical user interface), wherein the text blocks are selectable by the user within the object data area through the graphical user interface (“In Card Editor mode, you can add or modify entries” on page 11) for insertion into respective fields of the electronic form (changing/adding/deleting information in the object data area will change the electronic forms listed above);

(d) parsing the information elements into tagged groups of different information types (“Presto! BizCard keeps track of names, companies, mailing addresses, phone/fax numbers, e-mail addresses, and more. Simply scan your business cards and Presto! BizCard automatically saves the data and image for each card.”, page 1 wherein the parsing of the information elements into tagged groups of different information types are the names, companies, mailing addresses, phone/fax numbers, e-mail addresses, etc.); and

(e) populating the fields of the electronic form with the tagged groups to produce a populated form and allowing the user to edit the populated fields through the graphical user interface (“Card Editor Mode”, page 24), NewSoft does not teach (a) identifying a size,

orientation and position of a first object having any arbitrary orientation within the electronic image.

Zhou discloses a multiple image area detection in a digital image ("The invention relates to image processing, and more particularly to a method for detecting multiple image areas in a digital image.", column 2, line 8) that teaches identifying a size, orientation and position of a first object having any arbitrary orientation within the electronic image ("FIG. 1 is an exemplary scanned digital image including multiple image areas.", column 2, line 36. The size, orientation, and position of the first object (the business card or photo as shown in FIG. 1) are done through the stroke detection, stroke merge ("Specifically, two strokes are merged when they are collinear and the start point of one is near the end point of another", column 6, line 47), corner detection ("The absolute value of the cosine of the angle between strokes PS1 and PS2 is compared with an angle threshold value to determine if the two strokes are perpendicular.", column 18, line 66), and rectangle detection ("Using these guidelines, a set of corner configurations can be defined to cover all possible positions of corners for the formation of image area rectangles.", column 21, line 54) steps as shown in FIG. 3.).

It would have been obvious to one of ordinary skill in the art to disclose identifying a size, orientation and position of a first object having any arbitrary orientation within the electronic image as taught by Zhou to "...detect an image area in a digital image...", Zhou, column 1, line 58.

Regarding **claim 2**, while the combination between NewSoft and Zhou disclose the method of claim 1, the combination does not teach wherein (a) identifying a size, orientation and position of the first object among a plurality of objects within the electronic image.

Zhou discloses a multiple image area detection in a digital image (“The invention relates to image processing, and more particularly to a method for detecting multiple image areas in a digital image.”, column 2, line 8) that teaches (a) identifying a size, orientation and position of the first object among a plurality of objects within the electronic image (“FIG. 1 is an exemplary scanned digital image including multiple image areas. Referring to FIG. 1, digital image 10 is generated in one scan job by placing various image objects (photographs and a business card) on a scanner.”, column 5, line 18).

It would have been obvious to one of ordinary skill in the art to disclose (a) identifying a size, orientation and position of the first object among a plurality of objects within the electronic image as taught by Zhou to “...detect an image area in a digital image...”, Zhou, column 1, line 58.

Regarding **claim 3**, while the combination between NewSoft and Zhou disclose the method of claim 1, the combination does not teach wherein (a) comprises: classifying each pixel within the image to produce pixel classification data; defining an image function to process the pixel classification data; dividing the image into sub-images based on disparities in the image function; and processing the sub-images to determine a size, an orientation and a position for each of the objects, including the first object.

Zhou discloses a multiple image area detection in a digital image (“The invention relates to image processing, and more particularly to a method for detecting multiple image areas in a digital image.”, column 2, line 8) that teaches (a) classifying each pixel within the image to produce pixel classification data (“FIG. 6 is a flowchart illustrating the region segmentation process of the image area detection method according to one embodiment of the present

invention.”, column 7, line 45. FIG. 6 is a loop process from which every pixel of the image is selected and compared to a threshold to classify as either white (background) or black (foreground, possible image).);

defining an image function to process the pixel classification data (FIG. 6 illustrates the region segmentation process wherein the image function to process the pixel classification data is the region segmentation process as disclosed in FIG. 6);

dividing the image into sub-images based on disparities in the image function (“FIG. 7 illustrates the gray-scale image file 134 generated as a result of the operation of the region segmentation step on resized image 132. Referring to FIG. 7, white area in gray-scale image file 134 represents potential background area in digital image 10 while black area in gray-scale image file 134 represents potential image areas.”, column 8, line 45 wherein the sub-images are the separate potential image areas as disclosed.); and

processing the sub-images to determine a size, an orientation and a position for each of the objects, including the first object (“The invention relates to image processing, and more particularly to a method for detecting multiple image areas in a digital image.”, column 2, line 8) that teaches identifying a size, orientation and position of a first object having any arbitrary orientation within the electronic image (“FIG. 1 is an exemplary scanned digital image including multiple image areas.”, column 2, line 36. The size, orientation, and position of the first object (the business card or photo as shown in FIG. 1) are done through the stroke detection, stroke merge (“Specifically, two strokes are merged when they are collinear and the start point of one is near the end point of another”, column 6, line 47), corner detection (“The absolute value of the cosine of the angle between strokes PS1 and PS2 is compared with an angle threshold value to

determine if the two strokes are perpendicular.”, column 18, line 66), and rectangle detection (“Using these guidelines, a set of corner configurations can be defined to cover all possible positions of corners for the formation of image area rectangles.”, column 21, line 54) steps as shown in FIG. 3.).

It would have been obvious to one of ordinary skill in the art to disclose (a) classifying each pixel within the image to produce pixel classification data;

defining an image function to process the pixel classification data as taught by Zhou for “...identifying in the digital image a first image region indicative of the background area and a second image region indicative of the image area...”, Zhou, column 1, line 61.;

dividing the image into sub-images based on disparities in the image function as taught by Zhou because “...a user may scan multiple photographs at each scan job and use the image area detection method of the present invention to automatically detect and extract the individual photographs.”, Zhou, column 5, line 11; and

processing the sub-images to determine a size, an orientation and a position for each of the objects, including the first object as taught by Zhou to “...detect an image area in a digital image...”, Zhou, column 1, line 58

Regarding **claim 4**, while the combination between NewSoft and Zhou disclose the method of claim 3, the combination does not further comprise repeating the classifying pixels, defining an image function, and dividing of the image until the image contains a single object OR the image can no longer be divided.

Zhou discloses a multiple image area detection in a digital image (“The invention relates to image processing, and more particularly to a method for detecting multiple image areas in a

digital image.”, column 2, line 8) that teaches repeating the classifying pixels (The loop given in FIG. 6 from the first pixel to the last pixel in the image.), defining an image function (FIG. 6 illustrates the region segmentation process wherein the image function to process the pixel classification data is the region segmentation process as disclosed in FIG. 6), and dividing of the image until the image contains a single object OR the image can no longer be divided (The image is divided until the image can no longer be divided when a pixel-by-pixel region segmentation process of FIG. 6 is performed. The image is divided until it can no longer be divided by performing on every pixel.).

It would have been obvious to one of ordinary skill in the art to disclose repeating the classifying pixels, defining an image function, and dividing of the image until the image contains a single object OR the image can no longer be divided as taught by Zhou to incorporate and apply every pixel into the region segmentation algorithm.

Regarding **claim 5**, while the combination between NewSoft and Zhou disclose the method of claim 3, the combination does not teach 3 wherein classifying comprises classifying each pixel as one of a data pixel or a background pixel.

Zhou discloses a multiple image area detection in a digital image (“The invention relates to image processing, and more particularly to a method for detecting multiple image areas in a digital image.”, column 2, line 8) that teaches classifying each pixel as one of a data pixel or a background pixel (refer to references cited in claim 3).

It would have been obvious to one of ordinary skill in the art to disclose classifying each pixel as one of a data pixel or a background pixel as taught by Zhou for “...identifying in the

digital image a first image region indicative of the background area and a second image region indicative of the image area...”, Zhou, column 1, line 61.

Regarding **claim 7**, NewSoft discloses wherein:

(b) comprises identifying two-dimensional locations of the text blocks (“Scanners have two main parameters that influence the quality of the OCR results.”, page 53 implying the results from the NewSoft program were given using OCR technology. OCR identifies two-dimensional locations of text blocks.) within the first object (business cards).

Regarding **claim 8**, NewSoft discloses wherein:

(c) comprises displaying to the user (“Card Editor mode” on page 11) the identified information elements in the object data area (left side of the Card Editor mode on page 11) within an image (right side of the Card Editor mode on page 11 where the identified information elements within the image are in the object data area) of the first object (business card) through the graphical user interface (the “Card Editor mode” on page 11 is a graphical user interface); and

(d) comprises highlighting (It has been interpreted that highlighting is emphasizing or making prominent. The boxes with block text inside for each field in the object data area is “highlighting” the tagged groups of different information types.) the tagged groups of different information types (information elements are the names, companies, mailing addresses, phone/fax numbers, e-mail addresses, etc and the first object are the business cards being scanned) within the image of the first object (the information elements are taken from within the image of the first object) in the object data area with visual indicators (The visual indicators is the name of the field itself (e.g. “Name”)) that indicate the different information types.

Regarding **claim 9**, NewSoft discloses wherein:

(d) comprises receiving the information elements as untagged media from an untagged media store, and parsing the untagged media to identify information types of the information elements (“The first time you run the program, an empty database file (Untitled.mdb) will be opened.”, page 7 wherein the empty database file is considered untagged media from an untagged media store. “Scan business cards to automatically build and maintain a database of all your business contacts.”, page 2 discloses where the business card has been scanned and the untagged media mentioned is parsed to identify information types of the information elements as shown in “Card Editor mode”, page 11);

(e) comprises automatically populating at least one of the fields with at least one of the information elements based on the information type of that element (“Scan business cards to automatically build and maintain a database of all your business contacts.”, page 2; Card Editor mode displays at least one of the fields with at least one of the information elements based on the information type of that element on page 11); and

(c) comprises displaying the information elements through an object data graphical user interface and displaying the populated fields and any unpopulated fields through a form graphical user interface (the Card Editor mode on page 11 displays both populated and unpopulated fields through a form graphical user interface).

Regarding **claim 10**, NewSoft discloses wherein: (c) further comprises employing visual indicator in the object data graphical user interface to indicate that an information element is compatible with a particular field in the form (“The Workspace”, page 7, “Card Deck Mode”, page 10 both show the respective fields populated when the scanner and software have

recognized a particular field. The population of the field itself constitutes an indicator in the object data graphical user interface to indicate that the information element itself is compatible with a particular field in the form.).

Regarding **claim 11**, NewSoft discloses wherein (c) further comprises indicating a status level associated with at least one information element in at least one populated field in the form (“The Workspace”, page 7, “Card Deck Mode”, page 10 both show the respective fields populated when the scanner and software have recognized a particular field. The population of the field itself constitutes an indicator in the object data graphical user interface to indicate that the information element itself is compatible with a particular field in the form. The population of the field itself constitutes an indicator as mentioned above, as well a status level. If the field had been populated, the status would be that the program and scanner attempted to fill in the field from the scanned business card whether correct or not. An empty field would indicate the status that the program and scanner either did not recognize anything on the scanned business card for that particular field, or possibly an error.).

Regarding **claim 12**, NewSoft discloses wherein (c) further comprises prompting the user to verify and/or correct the at least one information element in the at least one populated field based on the indicated status level (“Since the layouts of business cards vary tremendously, the BizCard software might not be able to correctly identify the information on all cards. For instance, the number 5 might be mistaken for the letter S if the type is not very clear or the card is damaged or dirty. If this happens, go to the Card Editor and correct any misread words or characters.”, page 22).

Regarding **claim 13**, NewSoft discloses wherein (d) comprises updating other fields of the populated form based on the user verification and/or correction of the at least one information element (refer to references cited in claim 12 wherein the information can be any of the fields of the populated form).

Regarding **claim 14**, NewSoft discloses further comprising:

(f) writing side information gleaned from edits made to any of the populated fields to a side information store (“Sometimes, data in separate programs may be identical but labeled differently. If you should find it necessary to change the way the data is transferred, click the Field Name Mapping button.”, page 34 in combination with “The fields on the left side are the BizCard fields, and on the right are the fields for the program or device you want to synchronize with. If you want to change any field, click the item in the right-hand column adjacent to the BizCard field for which you want to send or receive data. A list will appear. Choose the field to map to by clicking its name. Data for a field that is not mapped will not be transferred.”, page 35 wherein the side information is the low-level programming Biscard uses to store the information from the Field Mapping edit window on page 35.); and

(g) re-parsing the information elements into tagged groups of different information types in (d) and re-populating at least one other field in (e) based on the side information (“After setting your Synchronize Options, you can start to Export, Import, or Synchronize your contact information.”, page 36. The option of synchronizing will re-parse the information elements into tagged groups of different information types in (d) and re-populate at least one other field in (e) based on the side information to the device/software ready to be synchronized with (Palm Computing Platform, Outlook Express, etc.).).

Regarding **claim 15**, NewSoft discloses wherein the electronic image comprises a plurality of objects and the method further comprises: (f) performing (a) through (e) for each object, such that, for each object, fields of a corresponding electronic form are at least partially populated with information elements obtained from pixels within that object (“Multiple cards in one scan. If you are using a flatbed scanner and want to scan more than one business card at a time, selecting this option will let Presto! BizCard perform the multiple-card boundary analysis. Clear this option if you want to scan each card separately.”, page 16 in combination with “After the scan is finished, the program will perform the recognition and return to the screen at which you began the scan with the new cards included. Compare the information from the cards and edit as needed.”, page 22).

Regarding **claim 16**, NewSoft discloses the method of claim 15 wherein the plurality of objects comprises objects of different types (It is inherent that every business card is unique with arbitrary potential information fields (address, name, number, etc) in arbitrary position placement on the business card itself, constituting that any two business cards are of different “types”. Since NewSoft can scan multiple business cards on the flatbed, a plurality of objects (the business cards) comprises objects of different types.).

Regarding **claim 17**, claim 1 recites identical features as in claim 17 wherein the method is a computer-readable medium comprising computer-executable instructions that, when executed by a computer, performs the method (“System Requirements”, NewSoft, page 3 and the installation procedure of the software starting on page 4). Thus, arguments equivalent to those presented above for claim 1 is equally applicable to claim 17.

Regarding **claim 18**, claim 15 recites identical features as in claim 18. Thus, arguments equivalent to those presented above for claim 15 is equally applicable to claim 18.

Regarding **claim 19**, claim 16 recites identical features as in claim 19. Thus, arguments equivalent to those presented above for claim 16 is equally applicable to claim 19.

Regarding **claim 20**, claim 3 recites identical features as in claim 20. Thus, arguments equivalent to those presented above for claim 3 is equally applicable to claim 20.

Regarding **claim 21**, claim 5 recites identical features as in claim 21. Thus, arguments equivalent to those presented above for claim 5 is equally applicable to claim 21.

Regarding **claim 23**, claims 7 and 8 recite identical features as in claim 23. Thus, arguments equivalent to those presented above for claims 7 and 8 are equally applicable to claim 23.

Regarding **claim 24**, claim 9 recites identical features as in claim 24. Thus, arguments equivalent to those presented above for claim 7 is equally applicable to claim 24.

Regarding **claim 25**, claim 10 recites identical features as in claim 25. Thus, arguments equivalent to those presented above for claim 10 is equally applicable to claim 25.

Regarding **claim 26**, claim 11 recites identical features as in claim 26. Thus, arguments equivalent to those presented above for claim 11 is equally applicable to claim 26.

Regarding **claim 27**, claim 12 recites identical features as in claim 27. Thus, arguments equivalent to those presented above for claim 12 is equally applicable to claim 27.

Regarding **claim 28**, claim 13 recites identical features as in claim 28. Thus, arguments equivalent to those presented above for claim 13 is equally applicable to claim 28.

Regarding **claim 29**, claim 14 recites identical features as in claim 29. Thus, arguments equivalent to those presented above for claim 14 is equally applicable to claim 29.

Regarding **claim 30**, claims 1 and 7 recite identical features as in claim 30. Thus, arguments equivalent to those presented above for claims 1 and 7 are equally applicable to claim 30.

Regarding **claim 31**, claim 1 recites identical features as in claim 31. Thus, arguments equivalent to those presented above for claim 1 is equally applicable to claim 31.

Regarding **claim 32**, claim 3 recites identical features as in claim 32. Thus, arguments equivalent to those presented above for claim 3 is equally applicable to claim 32.

Regarding **claim 33**, claim 5 recites identical features as in claim 33. Thus, arguments equivalent to those presented above for claim 5 is equally applicable to claim 33.

Regarding **claim 35**, claims 7 and 8 recite identical features as in claim 35. Thus, arguments equivalent to those presented above for claims 7 and 8 are equally applicable to claim 30.

Regarding **claim 36**, claim 9 recites identical features as in claim 36. Thus, arguments equivalent to those presented above for claim 9 is equally applicable to claim 36.

Regarding **claim 37**, claim 10 recites identical features as in claim 37. Thus, arguments equivalent to those presented above for claim 10 is equally applicable to claim 37.

Regarding **claim 38**, claim 11 recites identical features as in claim 38. Thus, arguments equivalent to those presented above for claim 11 is equally applicable to claim 38.

Regarding **claim 39**, claim 12 recites identical features as in claim 39. Thus, arguments equivalent to those presented above for claim 12 is equally applicable to claim 39.

Regarding **claim 40**, NewSoft discloses wherein the parsing module comprises means for updating other fields of the populated form according to edits made by the user to the populated fields and the unpopulated fields (“In Card Editor mode, you can add or modify entries. Click on any field to edit.”, page 11 wherein the Card Editor mode contains all possible fields from the business card, some blank, others populated to be saved “Use this option to duplicate your card file with a different name. Choose Save As from the file menu, select a location, and type in a file name. Click Save.”, page 47.).

Regarding **claim 41**, NewSoft discloses a method for populating electronic forms from an electronic image (“Simply scan your business cards and Presto! BizCard automatically saves the data and image for each card. Different viewing modes are available for easy searching, editing, creating, and sorting.”, page 1) having first and second objects of different information types (Refer to arguments/references for claim 16. “Multiple cards in one scan. If you are using a flatbed scanner and want to scan more than one business card at a time...”, page 16), the method comprising:

performing optical character recognition on each sub-image to identify untagged information elements within the corresponding object (refer to references cited in claim 7);
for each sub-image, parsing the untagged information elements into tagged information elements (refer to references cited in claim 1);

populating fields in a first electronic form type with the tagged information elements identified from the sub-image of the first object to produce a first populated form (refer to references cited in claim 1 wherein the first electronic form is the “Card Deck mode”, page 10);

populating fields in a second electronic form type with the tagged information elements identified from the sub-image of the second object to produce a second populated form (refer to references cited in claim 1 wherein the second electronic form is the “Card List mode”, page 12); and

displaying the first and second populated forms and the untagged information elements to a user through a graphical user interface and allowing the user to edit the first and second populated forms through the graphical user interface (Refer to references cited in claim 1 wherein the “Card Editor mode”, page 11 allows the user to add and modify entries that will be later reflected in the first and second populated forms.), however NewSoft does not teach identifying a size, orientation and position of the first and second objects within the electronic image and dividing the electronic image into sub-images corresponding to pixels in the electronic image associated with the size, orientation and position of each object.

Zhou discloses a multiple image area detection in a digital image (“The invention relates to image processing, and more particularly to a method for detecting multiple image areas in a digital image.”, column 2, line 8) that teaches identifying a size, orientation and position of the first and second objects within the electronic image and dividing the electronic image into sub-images corresponding to pixels in the electronic image associated with the size, orientation and position of each object (“FIG. 1 is an exemplary scanned digital image including multiple image areas.”, column 2, line 36. The size, orientation, and position of the first object (the business card or photo as shown in FIG. 1) are done through the stroke detection, stroke merge (“Specifically, two strokes are merged when they are collinear and the start point of one is near the end point of another”, column 6, line 47), corner detection (“The absolute value of the cosine

of the angle between strokes PS1 and PS2 is compared with an angle threshold value to determine if the two strokes are perpendicular.”, column 18, line 66), and rectangle detection (“Using these guidelines, a set of corner configurations can be defined to cover all possible positions of corners for the formation of image area rectangles.”, column 21, line 54) steps as shown in FIG. 3.).

It would have been obvious to one of ordinary skill in the art to disclose identifying a size, orientation and position of the first and second objects within the electronic image and dividing the electronic image into sub-images corresponding to pixels in the electronic image associated with the size, orientation and position of each object as taught by Zhou to “...detect an image area in a digital image...”, Zhou, column 1, line 58.

8. **Claims 6, 22, and 34** are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination between NewSoft (NewSoft Presto! Biscard User’s Guide, NewSoft Technology Corp., 2001) and Zhou (US 6,898,316 B2), in further view of Huaug (US 7,103,198 B2). **This rejection is repeated herein verbatim from the previous Office Action.**

9. **Claim 42** is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination between NewSoft (NewSoft Presto! Biscard User’s Guide, NewSoft Technology Corp., 2001) and Zhou (US 6,898,316 B2), in further view of Pandipati (US 2002/0101626 A1). **This rejection is repeated herein verbatim from the previous Office Action.**

Response to Arguments

10. Applications arguments filed on 5/10/2007 with respect to **claims 17-29** under §101 have been respectfully and fully considered, and have been found persuasive due to the claim

amendments. Applicant argues that a “signal” does fall within the statutory classes of §101, though claim 17 has been amended to include disclosed tangible computer readable media, further restricting, thereby excluding the non-statutory intangible media

11. Applicant’s arguments filed on 5/10/2007 with respect to independent **claims 1, 17, and 30** have been respectfully and fully considered, but they are not found persuasive. Applicant argues that after amendment with addition to the object data area, form data area, and optical character recognition matter, the claims are non-obvious in view of the Newsoft and Zhou references. However, Newsoft “Card Editor mode” on pages 11, 24 fully anticipates by defining the object data area as the left side of the GUI, and the form data area as the right side of the GUI. The Card Editor mode does display identified text blocks in an object data area (left side of the Card Editor mode where some fields have been automatically filled in from OCR of the business card) that is outside of the form data area (right side of the Card Editor mode displaying business card), wherein the text blocks are selectable by the user within the object data area (“...add or modify entries.” on page 11) through the graphical data interface for insertion into respective fields of the electronic form (the electronic form can be any Card Deck mode on page 10; the electronic form in Card List mode on page 12; the electronic form on the left side of the Card Editor mode on page 11 as they are all updated when fields are modified).

The addition of OCR matter to the independent claims are again anticipated by NewSoft for the same reasons given for claims 7, 23, and 35 of the first Office Action.

Applicant argues that it would not have been obvious to one of ordinary skill in the art to disclose identifying a size, orientation and position of the first object having any arbitrary orientation with the electronic images as taught by Zhou because Zhou merely receives a digital

image containing one or more image areas and operates to automatically detect image area rectangles for each image area. The extracted images are treated simply as images, not objects from which information is identified and used to fill electronic forms. However, NewSoft discloses steps (b) through (e) that fully supports treating the images as objects from which information is identified and used to fill electronic forms (as Zhou need not to anticipate). If NewSoft were modified according to Zhou, the first object of NewSoft (which is also an image when scanned) would identify a size, orientation, and position having any arbitrary orientation within the electronic image and proceed with steps (b) through (e) accordingly.

It must also be noted that though NewSoft does not go into the specifics of identifying size, orientation, and position of business cards in the scanner as does Zhou, NewSoft does detect automatically how the card is positioned (page 18), as well as rotation capability (page 24) and size recognition by the amount of data in the scanned image.

12. Applicant's arguments filed on 5/10/2007 with respect to **claims 8, 23, and 25** have been respectfully and fully considered, and though found persuasive, an adjusted and more specific anticipation by NewSoft has been established over the amended claim using the "Card Editor mode" as supported in the independent claims.

Newsoft again anticipates with the "Card Editor mode" displaying to the user the identified information elements in the object data area (left side of the Card Editor mode) within an image of the first object (the identified information elements are within an image of the first object) through the graphical user interface.

Highlighting can be interpreted as to emphasize or make prominent. The boxed black text of each tagged group (address, name, phone number, etc) in the defined object data area is a

form of “highlighting” to emphasize the information type within the image of the first object when placed next to each particular information type field. Visual indicators that indicate the different information types can be broadly interpreted to be the actual black text itself (e.g. the black text “Name” for the name, the black text “Address” for the address) within each box.

13. Applicant’s arguments filed on 5/10/2007 with respect to **claims 9, 24, and 36** have been respectfully and fully considered, and though found persuasive, an adjusted and more specific anticipation by NewSoft has been established over the amended claim using the “Card Editor mode” as supported in the independent claims.

NewSoft discloses wherein: (d) comprises receiving the information elements as untagged media from an untagged media store, and parsing the untagged media to identify information types of the information elements (“The first time you run the program, an empty database file (Untitled.mdb) will be opened.”, page 7 wherein the empty database file is considered untagged media from an untagged media store. “Scan business cards to automatically build and maintain a database of all your business contacts.”, page 2 discloses where the business card has been scanned and the untagged media mentioned is parsed to identify information types of the information elements as shown in “Card Editor mode”, page 11); (e) comprises automatically populating at least one of the fields with at least one of the information elements based on the information type of that element (“Scan business cards to automatically build and maintain a database of all your business contacts.”, page 2; Card Editor mode displays at least one of the fields with at least one of the information elements based on the information type of that element on page 11); and (c) comprises displaying the information elements through an object data graphical user interface and displaying the populated fields and any unpopulated fields

through a form graphical user interface (the Card Editor mode on page 11 displays both populated and unpopulated fields through a form graphical user interface).

14. Applicant's arguments filed on 5/10/2007 with respect to **claims 10 -14** have been respectfully and fully considered, but they are not found persuasive. The applicant argues that the elements are believed to be not disclosed by the cited references. However, Newsoft again fully anticipates as supported in the first Office Action.

15. Applicant's arguments filed on 5/10/2007 with respect to **claim 16** have been respectfully and fully considered, but they are not found persuasive. Applicant argues that two business cards are of the same type – they are both business cards and suggesting that “type” is only between various objects themselves and not within the same object. However, it has been interpreted broadly by the examiner that “type” can be within the same object, as there are different “types” of business cards, each holding “types” of information (e.g. size alone constitutes different types of business cards - 3.5×2 inches in the US, 91×55 mm in Japan, 90×55 mm in Australia wherein the “information” is size).

By definition, a “type” is a number of things sharing a particular characteristic, or set of characteristics, that causes them to be regarded as a group. Thus, Australian size business cards (cards of size 90×55 mm) is of a different “type” than Japanese size business cards (91×55 mm), and hence it is possible to have business cards (objects) of different information types.

16. Applicant's arguments filed on 5/10/2007 with respect to **claim 14** have been respectfully and fully considered, and though they are not found persuasive, the examiner will clarify. Applicant argues that again two different business cards do not constitute first and second objects

of different information types and further that the electronic form types are the same (both business card-types forms). Refer to the argument given for claim 16.

In addition the applicant argues that the “Card Deck Mode” and “Card List Mode” correspond to different display options of the same business cards. Each display illustrates the same identical information. Further, they correspond to objects of the same information type. However, in reference to claim 16 in concluding that multiple business cards are of different types in addition to multiple business cards scanned at once (page 16 of Newsoft), the first and second electronic form types will both automatically fill with information from objects of different types from one scanning. Each display illustrates the same identical information for one business card, though if multiple cards were scanned at once, each display would illustrate different information from different cards (objects).

17. Applicant’s arguments filed on 5/10/2007 with respect to **claims 6, 22, and 34** have been respectfully and fully considered, but they are not found persuasive. Applicant argues that since claims 6, 22, and 34 depend from respective independent claims which are new and non-obvious. However, the respective independent claims are not new and non-obvious as supported above, thus claims 6, 22, and 34 are not new and non-obvious.

18. Applicant’s arguments filed on 5/10/2007 with respect to **claim 41** have been respectfully and fully considered, but they are not found persuasive. Applicant argues two different business cards do not constitute first and second objects of different information types. Further, the electronic form types are the same as they are both business card-types forms. However, as interpreted in claim 16 above, “type” can be within the same object, as there are different “types” of business cards, each holding “types” of information (e.g. size alone constitutes different types

of business cards - 3.5×2 inches in the US, 91×55 mm in Japan, 90×55 mm in Australia wherein the “information type” is size). In view of the interpretation, independent claim 41 is not new and non-obvious in view of NewSoft and Zhou.

19. Applicant’s arguments filed on 5/10/2007 with respect to **claim 42** have been respectfully and fully considered, but they are not found persuasive. Applicant argues neither Pandipati, NewSoft, nor Zhou disclose how two separate objects within the same electronic image and having different information types can be identified such that respective information elements can be identified within each corresponding object and used to populate respective forms of different form types. However, if the software of NewSoft in view of Zhou included the software of Pandipati, all objects (whether business cards or receipts) would be imported into the software of NewSoft in view of Zhou (the business cards would probably fill more fields than the receipts since they are more recognizable in the first electronic form) as well as being importing into the software of Pandipati (the receipts would probably fill more fields than business cards in the second electronic form). Pandipati also mentions that the scanner accommodates papers of differing sizes including bills, receipts, bank statements, etc that would to one of ordinary skill in the art add consider obvious to add business cards as well (which would then add NewSoft in view of Zhou).

Claims 41 and 42 do not cite and support filling only specific “respective” information elements into “respective” forms as argued by the applicant, nor does it appear supported by the disclosure as this remark will not be considered.

Conclusion

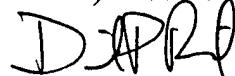
20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

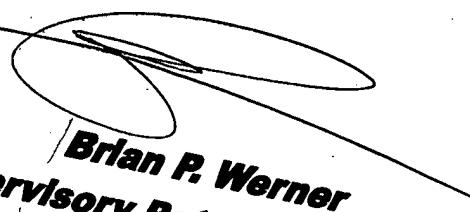
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Rashid whose telephone number is (571) 270-1578. The examiner can normally be reached on Monday – Friday 8:30 - 17:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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